



INSPECTION REPORT: KENSINGTON GOLD MINE

Tongass National Forest Minerals Group
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Date of Inspection: Thursday July 29, 2021
Date of Report: 08/10/2021
USDA Forest Service Inspector: Casey Loofbourrow

Ranger District: Juneau Ranger District
Weather Conditions: Sunny. Temperature: Mid 60's °F.

Exploration in accordance with operating plan	Not Applicable
Timber removal following timber sale contract	Not Applicable
BMPs for erosion control	Satisfactory
Water Quality BMPs	Satisfactory
Public safety & fire prevention	Satisfactory
Reclamation work adequate and timely	Satisfactory
Roads maintenance adequate and current	Satisfactory
Tails placement in accordance with plan	Satisfactory
Waste Rock placement in compliance	Satisfactory
Company supervision of operation	Satisfactory
Operating in a clean and orderly manner	Satisfactory

Any conditions noted as UNSATISFACTORY will require follow up action by the Mine Inspector and a written memorandum to the operator, outlining the necessary work.

Transportation to and from the mine was with an Alaska Seaplanes De Havilland Beaver aircraft.

Kevin Eppers (Environmental Manager, Coeur Alaska) accompanied Casey Loofbourrow (geologist), Pat Dryer (hydrologist), and Richard Dudek (geologist) of the USFS Tongass Minerals Group.

Sites visited during the inspection included: access roads, Comet Development Pile, Comet Water Treatment Plant (CWTP), Sherman Creek Outfall 001, Comet Beach, Comet access road bridges, Revegetation test plot, Pit 4, Pit 1, and the Tailings Treatment Facility (TTF) area, Fuel Depot, and the Slate Cove Marine Terminal.

STATUS OF PENDING ACTION ITEMS FROM PREVIOUS INSPECTIONS:

ID	Action Item	Status
182-1	Sherman Creek Bridge downhill side abutment silt fencing is in disrepair. This should be replaced or removed if no longer needed.	Resolved. Silt fencing has been repaired and reinforced (Photo 6).
182-2	Graphitic phyllite stockpile at Pit 4 requires covering.	Pending. Stockpile is covered but inadequately protected from wind gusts (Photo 9).
182-3	The screen for the Upper Slate Lake diversion pipeline intake has accumulated debris that requires removal.	Resolved. Debris has been removed from intake screen. (Photo 15).



NEW ACTION ITEMS:

183-1: Determine the cause of light colored areas in the TTF to ensure the nine foot water depth requirement is being maintained (Photos 10-11).

183-2: Investigate the source and geochemistry of potential ARD seep near the east abutment of the TTF dam (Photos 13-14).

183-3: Remove log from face of the TTF dam (Photo 15).

ACCESS ROADS

The access roads were in adequate condition and well maintained. Silt fencing, berms, and sediment traps appeared to be functioning as intended and no significant sediment transport to the surrounding environment was observed as a result of erosion. (2016 BMP Plan; Table 4-4).

COMET DEVELOPMENT PILE

The slopes of the Comet waste rock storage area appear stable (Photo 1).

COMET WATER TREATMENT PLANT (CWTP)

The CWTP was treating approximately 2,463 gallons per minute (gpm). Ponds 1 and 2 were in good condition and functioning as designed (Photos 2-3). The mobile water treatment plant, referred to as plant 2.5, was operating.

White material was not observed on the test rocks used for monitoring in the CWTP (Photo 4).

COMET BEACH AND ACCESS ROAD/BRIDGES

The core storage facility at comet beach was orderly.

No Name Creek Bridge and abutments were in good condition with no evidence of erosion or sedimentation (Photo 5).

A previous action item (181-1) was to repair the Sherman Creek Bridge downhill side abutment silt fencing. This has been repaired and is in good condition (Photo 6).

SHERMAN CREEK OUTFALL

White material was not observed on the substrate in Sherman Creek (Photo 7). In the underground workings Z-Clear 129 continues to be added to seepage water at the lowermost sump. This coagulant is used in an attempt to remove flocculants and polymers used as underground drill additives that Coeur suspects contribute to the white material intermittently observed at the Sherman Creek Outfall.

PIT 4 AND PUG PLANT

The pug plant was not operating at the time of inspection but has been operating intermittently this season (Photo 8). The pug plant is used to mix ARD-generating graphitic phyllite with concrete in preparation for underground backfill and storage to prevent impacts to surface resources. Mr. Eppers stated that Coeur Alaska hopes to have completed processing and backfilling all currently stockpiled graphitic phyllite by the end of 2022.



PENDING ACTION ITEM 182-2: Graphitic phyllite stored at this location is to be in covered and lined containment to manage ARD. A previous action item (182-2) was to repair the upper liner intended to prevent rainwater infiltration, and this has been completed (Photo 9). However, a light wind was intermittently inflating the liner at the time of inspection and a strong gust could damage it, so measures should be taken to prevent wind damage to the containment liner.

TAILINGS TREATMENT FACILITY (TTF) AREA

ACTION ITEM 183-1: Tailings placement has been shifted from the northwest to the northeast area of the TTF. A number of light colored areas were observed that did not appear to change in form or dissipate as would be expected of a suspended sediment plume (Photos 10-11). It should be determined whether these light areas maintain the nine-foot water depth requirement.

The TTF dam spillway was functioning as intended and free of debris. The acid rock drainage (ARD) diversion sill appeared to be preventing seepage of ARD into the dam spillway (Photo 12).

ACTION ITEM 183-2: South of the lower dam access road near the east abutment there is an apparent ARD seep (Photos 13-14). Though this water should be effectively captured for treatment by the existing seepage collection sumps, the origin and geochemical nature of the seepage should be investigated. Mr. Eppers stated samples would be collected and analyzed from this site.

ACTION ITEM 183-3: There is a log against the face of the dam that should be removed (Photo 15)

The effluent discharge was 828 gpm. The outfall water measured 7.47 pH and 1.108 NTU. The discharge from the Upper Slate Lake (USL) bypass was approximately 500 gpm.

A previous action item (182-3) was to remove debris from the USL diversion intake structure, and this has been completed (Photo 16).

Good housekeeping practices were observed at the TTF water treatment plant (Appendix 4g BMP plan; Table 4-1). The water treatment plant was discharging 828 gpm.

MARINE PORT FACILITY AND FUEL DEPOT

The stormwater BMPs by the port facility were in good condition (Photo 17).

The tank farm, fueling bay, and fuel transfer header appeared in good condition and free of spills.

PHOTOS **Note: the time stamps on photos included in this report are incorrect. All photos were taken July 29, 2021.** Additional photos available upon request.



Photo 1. Comet Development Pile looking south.



Photo 2. Comet Pond 1.



Photo 3. Comet Pond 2.



Photo 4. Test rocks for white material accumulation in CWTP.



Photo 5. No Name Creek bridge abutment.



Photo 6. Sherman Creek bridge abutment repaired silt fencing.



Photo 7. Sherman Creek outfall absent of white material.



Photo 8. Pug plant.



Photo 9. Graphitic phyllite stockpile at Pit 4.



Photo 1. Northeast TTF tailings placement area showing light colored areas.



Photo 2. Northwest TTF tailings placement area showing light colored areas.



Photo 3. TTF dam spillway.



Photo 4. Potential ARD seep near east TTF dam abutment.



Photo 5. Potential ARD seep near east TTF dam abutment.



Photo 15. Log against the face of the TTF dam.



Photo 16. Upper Slate Lake diversion intake screen.



Photo 17. Marine Terminal stormwater BMPs.

Thanks to the Kensington Mine for a safe visit.
U.S. Forest Service Officer: /s/ Casey Loofbourrow
